

What is claimed is:

1. (currently amended) A hybrid protein comprising:
  - (i) a protein undergoing at least one reaction of binding to a receptor of at least one cell type selected from the group consisting of mastocytes and basophils and of being endocytosed by the at least one cell type selected from the group consisting of the mastocytes and basophils;
  - (ii) a protease cleaving one or more proteins of the secretion apparatus of the at least one cell type selected from the group consisting of the mastocytes and basophils so as to inhibit the secretion process without killing the at least one cell type selected from the group consisting of the mastocytes and basophils, wherein the protease (ii) is selected from the group consisting of:
    - light chain of a Clostridium botulinum ~~toxin~~ neurotoxin;
    - proteolytically active fragment of the light chain of a Clostridium botulinum ~~toxin~~ neurotoxin containing an amino acid sequence of SEQ ID NO:1 His-Xaa-Xaa-Xaa-His-Xaa-Xaa-His, wherein Xaa is selected from the group of amino acids;
    - light chain of the tetanus toxin (TeNT);
    - proteolytically active fragment of the light chain of the tetanus toxin containing an amino acid sequence of SEQ ID NO:2 His-Asp-Leu-Ile-His-Val-Leu-His;
    - IgA protease of Neisseria gonorrhoeae; and
    - proteolytic domain of the IgA protease of Neisseria gonorrhoeae.
2. (currently amended) The hybrid protein according to claim 1, wherein the Clostridium botulinum ~~toxin~~ is a toxin neurotoxin is of type A, B, C1, D, E, F, or G.
3. (original) The hybrid protein according to claim 1, wherein the protein (i) is selected from the group consisting of:
  - IgE;

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- IgE fragment;
- IgE Fc fragment;
- antibody against IgE receptor of the at least one of the mastocytes and basophils; fragment of the antibody against the IgE receptor of the at least one of the mastocytes and basophils; antibody against mastocyte-specific potassium channel; and
- MCD (mast cell degranulating) peptide.

4. (original) The hybrid protein according to claim 3, wherein the fragment of the antibody against the IgE receptor of the at least one of the mastocytes and basophils is a Fab fragment.

5. (currently amended) The hybrid protein according to claim 3, further comprising the N-terminal portion of a heavy chain of a toxin neurotoxin (H<sub>N</sub> fragment) or a fragment thereof in addition to the light chain of a Clostridium botulinum toxin neurotoxin or of the tetanus toxin.

6. (currently amended) A hybrid protein comprising:

(i) a protein undergoing at least one reaction of binding to a receptor of at least one cell type selected from the group consisting of mastocytes and basophils and of being endocytosed by the at least one cell type selected from the group consisting of the mastocytes and basophils, wherein the protein is selected from the group consisting of:

- IgE;
- IgE fragment;
- IgE Fc fragment;
- antibody against IgE receptor of the at least one cell type selected from the group consisting of the mastocytes and basophils; fragment of the antibody against the IgE receptor of the at least one cell type selected from the group consisting of the mastocytes and basophils; antibody against mastocyte-specific potassium channel; and

- MCD (mast cell degranulating) peptide; and  
(ii) a protease cleaving one or more proteins of the secretion process of the at least one cell type selected from the group consisting of the mastocytes and basophils so as to inhibit the secretion process without killing the at least one cell type selected from the group consisting of the mastocytes and basophils, wherein the protease is selected from the group consisting of:

- light chain of a Clostridium botulinum toxin neurotoxin;
- proteolytically active fragment of the light chain of a Clostridium botulinum toxin neurotoxin containing an amino acid sequence of SEQ ID NO:1 His-Xaa-Xaa-Xaa-His-Xaa-Xaa-His wherein Xaa is selected from the group of amino acids;
- light chain of the tetanus toxin (TeNT);
- proteolytically active fragment of the light chain of the tetanus toxin containing an amino acid sequence of SEQ ID NO:2 His-Asp-Leu-Ile-His-Val-Leu-His;
- IgA protease of Neisseria gonorrhoeae; and
- proteolytic domain of the IgA protease of Neisseria gonorrhoeae.

7. (original) The hybrid protein according to claim 6, wherein the fragment of the antibody against the IgE receptor of the at least one of the mastocytes and basophils is a Fab fragment.

8. (currently amended) The hybrid protein according to claim 6, wherein the Clostridium botulinum toxin ~~is a toxin~~ neurotoxin is of type A, B, C1, D, E, F, or G.

9. (currently amended) The hybrid protein according to claim 6, further comprising the N-terminal portion of a heavy chain of a botulinum toxin neurotoxin or a tetanus toxin ( $H_N$  fragment) or a fragment of the N-terminal portion of the heavy chain of the botulinum toxin neurotoxin or the tetanus toxin in addition to the light chain of the Clostridium botulinum toxin neurotoxin or of the tetanus toxin.

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10. (original) A method of inhibiting degranulation of mastocytes and basophils by administering an effective amount of a hybrid protein according to claim 1.

11. (original) A method of inhibiting degranulation of mastocytes and basophils by administering an effective amount of a hybrid protein according to claim 6.